

IN THE CLAIMS

Claim 1 (currently amended): A fusion protein peptide comprising a selenocysteine-containing peptide covalently linked to a surface protein positioned on ~~wherein the peptide is fused to a surface protein~~ of an amplifiable particle.

Claim 2 (currently amended): The fusion protein peptide of claim 1, wherein the amplifiable genetic particle is selected from a phage, a polysome, a virus, a cell or a spore.

Claims 3-20 (cancelled)

Claim 21 (new): A fusion protein according to claim 1, wherein the selenocysteine-containing peptide is a recombinant protein wherein the selenocysteine is located at a predetermined, unique site.

Claim 22 (new): A fusion protein according to claim 21, wherein the covalent linkage between the selenocysteine-containing peptide and the surface protein comprises a native peptide bond.

Claim 23 (new): A fusion protein according to claim 21, wherein the peptide is expressed by a DNA having a TGA codon and a part or all of a selenocysteine insertion sequence.

Claim 24 (new): A fusion protein according to claim 23, wherein the selenocysteine insertion sequence begins one or more nucleotides from the TGA codon.

Claim 25 (new): A fusion protein according to claim 21, wherein the selenocysteine is flanked on either or both sides by one or more randomized amino acid.

Claim 26 (new): A fusion protein according to claim 1, further comprising one or more randomized amino acids flanked by a cysteine on one side and a selenocysteine on the other side.

Claim 27 (new): A fusion protein according to claim 23, wherein the selenocysteine insertion sequence is obtained from the group consisting of eubacteria, eukarya and archaea.

Claim 28 (new): A fusion protein according to claim 1, wherein the selenocysteine is capable of chemical derivatization of the selenol group.

Claim 29 (new): A fusion protein according to claim 28, wherein the chemical derivatization results from a nucleophilic substitution reaction.

Claim 30 (new): A fusion protein according to claim 28, wherein the chemical derivatization results from an oxidation reaction.

Claim 31 (new): A fusion protein according to claim 28, wherein the chemical derivatization results from a metal coordination reaction.

Claim 32 (new): A fusion protein according to claim 28, wherein a product of chemical derivatization is a chemical functionality selected

from the group consisting of enzyme substrates, enzyme cofactors, enzyme inhibitors, receptor ligands and cytotoxic agents.

Claim 33 (new): A fusion protein according to claim 21 wherein the selenocysteine-containing peptide further comprises an enzyme substrate or is modified at the selenocysteine to form an enzyme substrate.

Claim 34 (new): A fusion protein according to claim 33, wherein the reaction product of the enzyme and the enzyme substrate is located on the surface of the amplifiable genetic particle.

Claim 35 (new): A fusion protein of claim 34, wherein the reaction product is capable of binding to an affinity substrate.

Claim 36 (new): A fusion protein, according to claim 33, wherein the recombinantly expressed enzyme is selected from a library of variants of a single enzyme, wherein each variant contains one or more amino acid substitutions relative to the native enzyme.

Claim 37 (new): A fusion protein according to claim 33, wherein the recombinantly expressed enzyme is selected from an expressed c-DNA library.